

THE PORT AUTHORITY OF NY & NJ



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I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS, BEING A PART OF CONTRACT NO. **WTC-945.071**, IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES.
DATE: **11/16/98** *Signature* **SEAL**
DATE: **11/10/98** *Signature* **SEAL**
ENGINEER OF DESIGN

11/17/97 ISSUED FOR BID

No. Date Revisions Approved
Engineering Department
Design Divisions

The World Trade Center

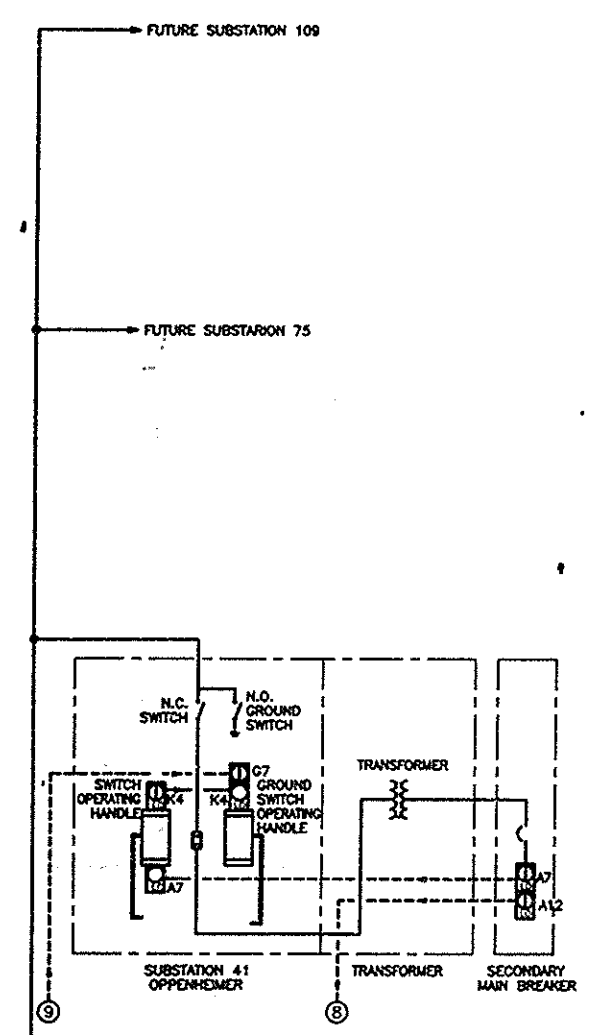
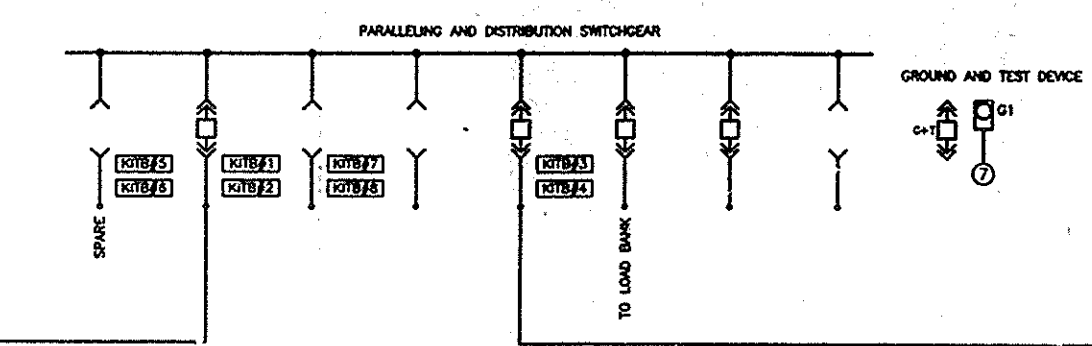
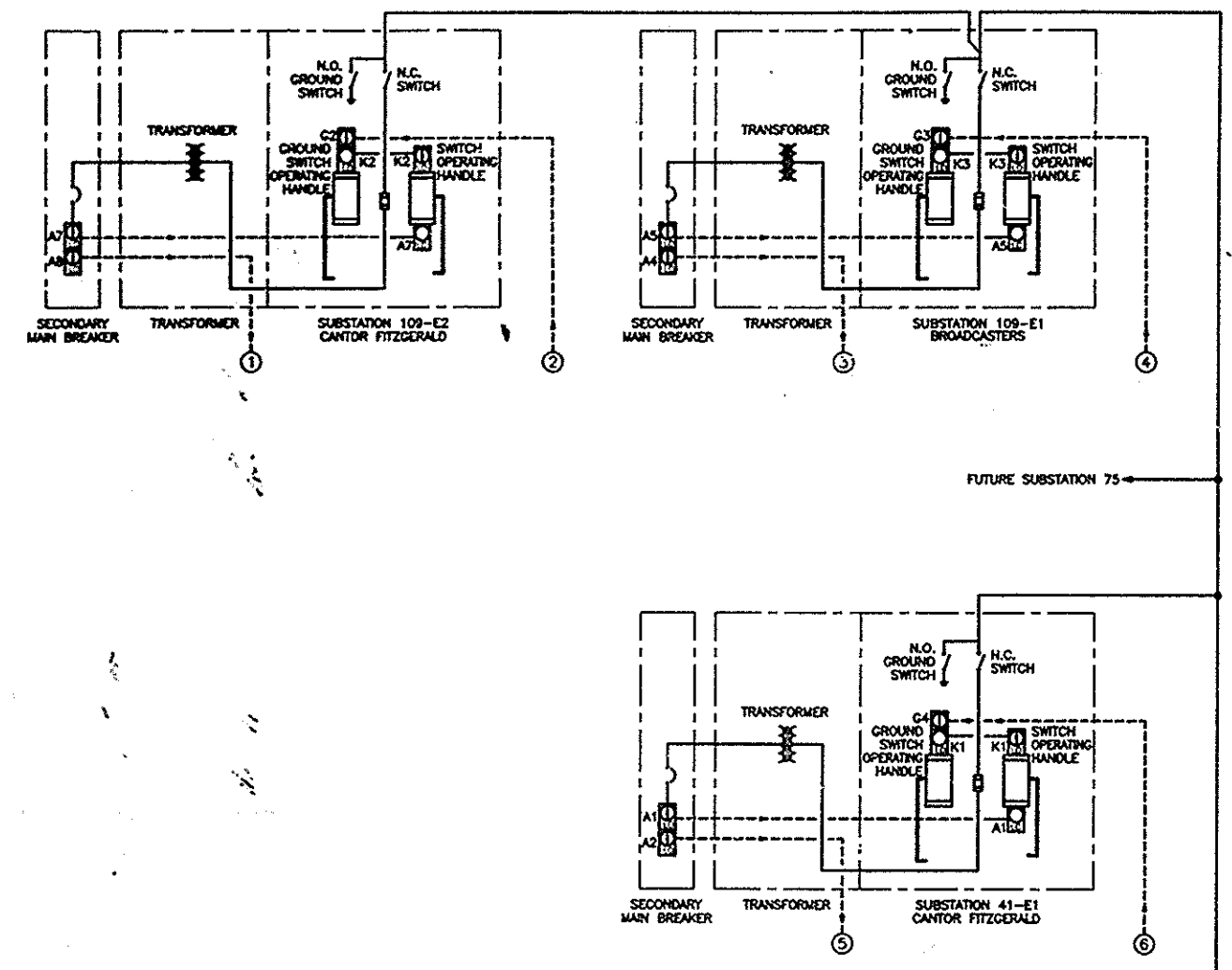
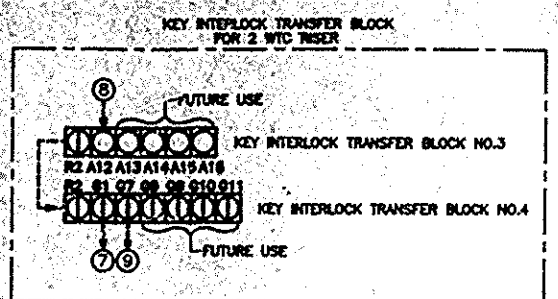
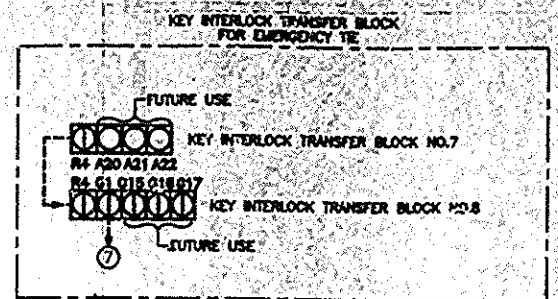
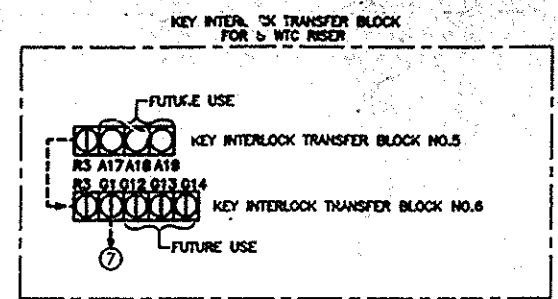
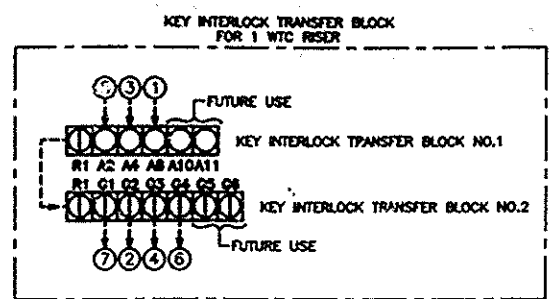
STANDBY POWER
5 WORLD TRADE CENTER

ELECTRICAL
KEY INTERLOCK SCHEME

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

BLM F.D.
Designed by Drawn by Check by
Date Scale
11/17/97 NONE
Contract Number Drawing Number
WTC-945.071 E1-04

LEGEND	
○	INDICATES KEY IS REMOVED
⊙	INDICATES KEY IS KEPT IN LOCK
—	POWER
—	KEY INTERLOCK ROUTING
—M—	MECHANICAL INTERLOCK



- TYPICAL SUBSTATION (109E2) INTERLOCK SCHEME**
- TO OPEN PRIMARY SWITCH
 - OPEN SECONDARY MAIN BREAKER AND LOCK OPEN. REMOVE KEY A-7 AND INSERT INTO PRIMARY SWITCH.
 - OPEN PRIMARY SWITCH.
 - TO CLOSE GROUND SWITCH
 - OPEN SECONDARY BREAKER AND PRIMARY SWITCH AS IN 1. ABOVE.
 - REMOVE KEY A-7 AND INSERT INTO TRANSFER BLOCK #1 AT FEEDER CIRCUIT BREAKER AND DISTRIBUTION SWITCHGEAR.
 - ALL SUBSTATIONS ON THE FEEDER MUST HAVE SECONDARY BREAKERS AND PRIMARY SWITCHES OPENED, RELEASING RESPECTIVE KEYS, WHICH ARE INSERTED IN TRANSFER BLOCK #1 AT FEEDER CIRCUIT BREAKER.
 - WHEN ALL KEYS ARE INSERTED INTO TRANSFER BLOCK #1, KEY R-1 CAN BE REMOVED AND INSERTED INTO BLOCK #2.
 - KEY G-2 IS RELEASED WHICH CAN BE INSERTED INTO SUBSTATION GROUND SWITCH.
 - KEY K-2, WHICH WAS RELEASED WHEN THE PRIMARY SWITCH WAS LOCKED OPEN, IS INSERTED INTO THE GROUND SWITCH, ALLOWING IT TO BE CLOSED.
 - KEY G-1, ALSO RELEASED, FROM TRANSFER BLOCK #2, IS USED TO RELEASE THE G-1 DEVICE, WHICH CAN BE INSERTED INTO THE FEEDER BREAKER CUBICLE.

- NOTES:**
- SUBSTATIONS SS109E1, SS109E2 AND SS41E1 ARE EXISTING. EXISTING KEY INTERLOCKS ARE TO BE RETAINED.
 - KEY INTERLOCK TRANSFER BLOCKS 1 AND 2 ARE EXISTING AND ARE TO BE RELOCATED FROM EXISTING BROADCASTERS SETUP TRANSFORMER.
 - KEY INTERLOCK G1 IS EXISTING AND IS TO BE RELOCATED FROM EXISTING BROADCASTERS TRANSFORMER AND MOUNTED ON G-1 DEVICE.

